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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/945,204	08/31/2001	David J. Domingues	PILO060/US	4507
33072	7590	07/29/2004	EXAMINER TRAN LIEN, THUY	
KAGAN BINDER, PLLC SUITE 200, MAPLE ISLAND BUILDING 221 MAIN STREET NORTH STILLWATER, MN 55082			ART UNIT	PAPER NUMBER
			1761	

DATE MAILED: 07/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/945,204	<b>Applicant(s)</b> DOMINGUES, DAVID J.	
	<b>Examiner</b> Lien T Tran	<b>Art Unit</b> 1761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

The finality of the office action mailed on 5/1/03 is hereby withdrawn in view of the newly discovered references to Kuechle et al and Gulstad et al. Rejections based on the new references follow.

Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicant amended claim 1 to recite a dough composition comprising a basic active ingredient, and acidic active ingredient and a barrier material wherein at below baking temperature the barrier material separates encapsulated basic active ingredient from acidic active ingredient. The limitation of the " barrier material separates encapsulated basic active ingredient" is not supported by the original disclosure. The basic material is encapsulated as a result of using the barrier material; there is no disclosure of a dough having both barrier material and a separate encapsulated basic ingredient. Claim 3 recites " basic active ingredient encapsulated in the barrier material".

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is vague and indefinite; it is not clear what is intended by the limitation " encapsulated basic ingredient" because the basic ingredient is encapsulated by the

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barrier material". There is no separate barrier material and encapsulated basic ingredient.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuechle et al in view of Gulstad et al.

Kuechle et al disclose a dough comprising a leavening system. A portion of the leavening system is encapsulated to delay the chemical reaction between the acidic and basic ingredients to allow for shelf life at temperature of about 30-50 degree F of up to about seven day. Preferably the basic ingredient is encapsulated such as encapsulated sodium bicarbonate. The carbonate is encapsulated in hydrogenated vegetable oil; one type of encapsulated soda used is sodium bicarbonated coated with hydrogenated cottonseed oil. The acidic ingredients used are the ones listed on col. 8 lines 19-27. The amount of basic ingredient is .5-2.5 and the amount of acidic ingredient is .5-2.5. The

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dough is stored freezing condition and refrigerated condition. (see col. 8 lines 8-54, col. 9 lines 1-15, col. 11 lines 1-9)

The basic ingredient is encapsulated in a fat; the fat is the barrier material in the Kuechle et al dough. The fact that the basic ingredient is encapsulated; the reaction between the acidic ingredient and basic ingredient will be inhibit because Kuechle et al disclose the reaction is delayed.

While Kuechle et al disclose some of the same acidic ingredient as claimed, they do not specifically disclose selecting the acidic ingredient to have relatively low solubility. Kuechle et al do not disclose the raw specific volume, the solubility as claimed, the melting temperature of the barrier material, the type of barrier material as claimed, the amount of basic ingredient of the encapsulated particles, encapsulating the acidic ingredient, the solid fat index and the baking temperature.

Gulstad et al disclose doughs comprising encapsulated basic and acidic ingredients. They teach leavening during cooking can be accomplished by suing leavening agents which are only nominally active at room temperature or by protecting the agents. Acidic ingredients which are only nominally active at room temperature are sodium aluminum sulfate, dicalcium phosphate dihydrate and sodium aluminum phosphate. They also teach encapsulating the ingredients in high melting fat having melting point in the range of 110-120 degree F. (see column 3 lines 54 through col. 4 line 41)

Kuechle et al. disclose to delay the reaction between the basic and acidic ingredients during storage. Thus, it would have been obvious to choose acidic

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ingredient among the materials disclosed to be nominally active at below baking temperature as taught by Gulstad et al to ensure the delaying of the chemical reaction between the leavening agents. This is contemplated by Kuechle et al because they disclose in one embodiment, the leavening acid includes sodium aluminum phosphate. It would also have been obvious to also encapsulate the acidic ingredient to further ensure that the two leavening ingredients will not react until baking. This is known in the art as shown by Gulstad et al. Applicant is combining known concept without any unexpected result. It would also have been obvious to one skilled in the art to use a high melting fat as the encapsulating material as taught by Gulstad to ensure that the barrier material will not melt at processing temperature which will defeat the purpose of encapsulation. It would also have been obvious to use fat with high solid fat index to obtain a more protecting coating because such fat has high solid content. This would have been readily apparent to one skilled in the art. When sodium aluminum phosphate is used, it is obvious it will have the same solubility as claimed. As to the specific volume, this varies with the type of dough and can readily be determined by one skilled in the art to obtain the most optimum product. The baking temperature also varies with the types of dough product and the degree of cooking desired. It is within the skill of one in the art to determine such parameter. It would also have been within the skill of one in the art to determine the appropriate amount of basic ingredient to use in the encapsulation and to determine the appropriate size to ensure proper dispersion in the dough.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lien T Tran whose telephone number is 571-272-1408. The examiner can normally be reached on Tuesday, Wednesday and Friday.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

July 25, 2004

  
LIEN TRAN  
PRIMARY EXAMINER  
